

TABLE 3
TIER 1 GROUNDWATER RBSLs AND STANDARDS

This table applies to groundwater and consists of DEQ-7 Human Health Standards (HHSs), where available. For compounds without DEQ-7 HHSs, DEQ has developed RBSLs and included them in the table. Surface water impacts require a minimum of a Tier 2 evaluation. For EPH compounds, a total extractable hydrocarbon (TEH) concentration of 500 µg/L is used to determine if additional analysis (fractionation) is needed.

Chemical	Effect	Basis	Groundwater Standard or RBSL (µg/l)
For Gasoline and Light Hydrocarbons measured using the Massachusetts Method for Volatile Petroleum Hydrocarbons (VPH)			
C5-C8 Aliphatics	n	rb	800
C9-C12 Aliphatics	n	rb	500
C9-C10 Aromatics	n	rb	1,000
MTBE	n	hhs	30
Benzene	c	hhs	5
Toluene	n	hhs	1,000
Ethylbenzene	n	hhs	700
Xylenes	n	hhs	10,000
Naphthalene	n	hhs	100
Lead Scavengers			
Ethylene dibromide (EDB)	c	hhs	0.004
1,2, Dichloroethane (DCA)	c	hhs	4
For Diesel and Heavy Hydrocarbons measured using the Massachusetts Method for Extractable Petroleum Hydrocarbons (EPH)			
C9-C18 Aliphatics	n	rb	500
C19-C36 Aliphatics	n	bu	1,000
C11-C22 Aromatics	n	rb	1,000
Acenaphthene	n	hhs	670
Anthracene	n	hhs	2,100
Benz(a)anthracene	c	hhs	0.5
Benzo(a)pyrene	c	hhs	0.05*
Benzo(b)fluoranthene	c	hhs	0.5
Benzo(k)fluoranthene	c	hhs	5
Chrysene	c	hhs	50
Dibenzo(a,h)anthracene	c	hhs	0.05*
Fluoranthene	n	hhs	130
Fluorene	n	hhs	1,100
Indeno(1,2,3-cd)pyrene	c	hhs	0.5
Naphthalene	n	hhs	100
Pyrene	n	hhs	830

Notes:

Effect is either: n = non-carcinogenic and direct contact RBSLs are based on a hazard quotient of 1, or
c = carcinogenic and direct contact RBSLs are based on a cancer risk 1×10^{-5} .

Basis is: rb = risk-based screening level;
hhs = DEQ-7 Human Health Standard; or
bu = adversely affects beneficial uses (foul taste or odor).
* = The best achievable practical quantitation limit (0.1 µg/L) may be greater than the human health standard; therefore, if the compound is detected, additional evaluation may be necessary.

DEQ's RBCA policy includes a ceiling concentration of 1,000 µg/l total purgeable hydrocarbons (TPH) for the Gasoline and Light Hydrocarbons and 1,000 µg/l total extractable petroleum hydrocarbons (TEH) for Diesel and Heavy Hydrocarbons .